

van den Heuvel, M.I., Winkler, I., Otte, R.A., Braeken, M.A.K.A., van der Wal, J., Donkers, F.C.L., Van den Bergh B.R.H.M. (2013). Mindful pregnancy: maternal mindfulness during the perinatal period affects the infant's auditory ERPs at 9 months of age. *Psychophysiology: vol. 50. Issue Supplement S1, S48-S48*. Annual Meeting of the Society-for-Psychophysiological-Research. Florence: Italy, 02-06 October 2013

Recently, mindfulness-based interventions are evaluated for decreasing stress during pregnancy, since prenatal stress is known to have negative effects on the fetus. Research on the effects of maternal mindfulness on the child, however, is not available. Here we investigated the effects of mother's prenatal mindfulness on processing regular and irregular sounds in the infant by recording event-related brain potentials (ERP). Maternal mindfulness was measured using the Freiburg Mindfulness Inventory (FMI-14; Walach et al., 2006) in the 2nd trimester ($N = 71$). Infant ERPs were measured at 9-months of age during an auditory oddball paradigm with 4 types of stimuli: a complex tone of 500Hz base frequency (standard, $p = .7$) delivered with 300ms inter stimulus interval (ISI), the same tone preceded by a deviant (100 ms) inter-stimulus interval (ISI-deviant, $p = .1$), white noise ($p = .1$), and novel sounds ($p = .1$). Preliminary analysis of the ERP amplitudes using repeated-measures ANOVAs with "FMI-14" as continuous predictor revealed that higher maternal mindfulness scores were associated with higher amplitudes of the "P2" ($p < .01$) followed by a lower amplitudes of the "N250" ($p < .05$) elicited by the standard sounds. No effects were found for the rare sounds. A tentative interpretation for our findings could be that infants prenatally exposed to higher maternal mindfulness have more preattentive access to perceptual representations. If replicated, our results may indicate that being more mindful during pregnancy is beneficial for mother and child.